

OUTREACH

UNIMAS RESEARCH BULLETIN | Vol.4 No.1

ISSN : 1985-2053



- University Culture and Leadership: Impact on Academic Work
- Chemical Compressor: Using Heat to Cool
- Troubleshooting Undergraduates' Academic Writing
- Optical Interferometry Surface Profiler System

Fast Facts on UNIMAS

Date established (incorporated) 24 December 1992
Campus Site Kota Samarahan, Sarawak, Malaysia
 (about 25 km from the city of Kuching,
 the capital city of Sarawak)

Present Vice Chancellor Prof Dr Khairuddin Ab Hamid

Student Enrolment	Undergraduate	6,500
(Academic Session 2009/2010)	Postgraduate	613
	Total	7,113

Full time staff	Academic	704
	Management	155
	Support	1093
	Total	1952

Faculties

Faculty of Applied and Creative Arts (FACA)
 Faculty of Cognitive Sciences and Human Development (FCSHD)
 Faculty of Computer Science and Information Technology (FCSIT)
 Faculty of Economics and Business (FEB)
 Faculty of Engineering (FE)
 Faculty of Medicine and Health Sciences (FMHS)
 Faculty of Resource Science and Technology (FRST)
 Faculty of Social Sciences (FSS)

Institutes

Institute of Biodiversity and Environmental Conservation (IBEC)
 Institute of East Asian Studies (IEAS)
 Institute of Health and Community Medicine (IHCM)

Centres

Centre for Language Studies (CLS)
 Centre for Academic Information Services (CAIS)
 Centre for Student Development (CSD)
 Centre for Technology Transfer and Consultancy (CTTC)
 Centre for Information and Communication Technology Services (CICTS)
 Centre for Applied Learning and Multimedia (CALM)
 Research and Innovation Management Centre (RIMC)
 Centre for Graduate Studies (CGS)

Centres of Excellence

Malaria Research Centre
 Centre for Water Research
 Centre for Rural Informatics
 Centre for Image Analysis and Spatial Technologies
 Centre for Renewable Energy
 Centre for Semantic Technology and Augmented Reality

International Linkages

54 International Partners Worldwide

Centre for Academic Information Services

Volume of Books	121,951
Sets of Media Materials	8,036
Journal Titles (Print and Electronic)	18,458

Editorial Committee

Advisor

Prof Dr Khairuddin Ab Hamid

Chairperson

Prof Dr Peter Songan

Members

Assoc Prof Dr Alvin Yeo Wee
 Assoc Prof Dr Chang Kam Hock
 Assoc Prof Dr Hew Cheng Sim
 Assoc Prof Dr Hong Kian Sam
 Assoc Prof Dr Samirah Abdullah
 Dr Ting Su Hie
 Dr Zainab Ngaini
 Resni Mona

Creative Designer

Angeline Lee Ling Sing
 Abg Zainuddin B Abg Hj Sharkawi

Photography

Bujang b Mohammad



Cover Design

Published by the Publication Division, UNIMAS.
 Copyright © 2010 UNIMAS. All rights reserved.
 No part of this publication may be reproduced
 or distributed in any form or by any means, or
 stored in a data base or retrieval system, without
 the prior written permission of Publication Division,
 UNIMAS.





Introduction to this Issue

The year 2009 has been a rewarding one for UNIMAS on the research front. This issue, therefore, highlights research awards and accolades that UNIMAS received both nationally and internationally.

How does university leadership and culture influence academic work in a university? This question was answered by researchers working on a collaborative projects with UNIMAS, the Ministry of Higher Education and Swinburne University. This project received the bronze award at PECIPTA 2009. The finding of this research is highlighted in this issue. Another award winning innovation is the Flexi Jacket which clinched the Gold medal at PECIPTA 2009. International recognition of our researchers and in-house journal are also highlighted in this issue.

A new section called "Research and Consultation Group" is introduced in this issue. Through this section we will highlight various research group at UNIMAS in an effort to widen, not only our consultation services but also to offer collaboration and networking with interested parties. May this New Year brings exciting challenges as UNIMAS continues to explore new frontiers in research and innovation.

Happy New Year!

Prof Dr Peter Songan

TABLE OF CONTENTS

Introduction	1
Research News	4
Donald Mackay Medal	
Emanuel Wolinsky Award for the Malaria Research Centre	
Journal by UNIMAS in the Top 500	
UNIMAS won MSC Malaysia APICTA 2009 Award	
UNIMAS Excelled at PECIPTA 2009	
Research Highlights	6
University Culture and Leadership: Impact on Academic Work	
Chemical Compressor: Using Heat to Cool	
Troubleshooting Undergraduates' Academic Writing	
Optical Interferometry Surface Profiler System	
Product and Technology Transfer	10
Flexi-Jacket: Jacket-cum-Backpack-cum-Tent	
Counselling via Augmented Reality	
Dual Functions Outdoor Furniture	
Eco-Colour: Natural Fabric Printing Dye Paste	
Networking	12
Stakeholder Speaks	13
Research & Consultation Group	14
Seminars and Conferences	15
Publications	16
Research Contacts	18

RESEARCH NEWS



Donald Mackay Medal

Dr Jane Cardosa, the Director of Institute of Health and Community Medicine, UNIMAS, was awarded the Donald Mackay Medal in 2009. The award by the American Society of Tropical Medicine and Hygiene (ASTMH) is given to outstanding work in tropical health, especially in improving the health of rural or urban workers in the tropics.

Emanuel Wolinsky Award for the Malaria Research Centre

A paper published in *Clinical Infectious Diseases* (CID) by researchers from the Malaria Research Centre (MRC), Faculty of Medicine & Health Sciences, UNIMAS, and their collaborators, received the Emanuel Wolinsky Award on 29 October 2009 at the 47th Annual Meeting of the Infectious Diseases Society of America in Philadelphia, USA. Their paper entitled 'Plasmodium knowlesi malaria in humans is widely distributed and potentially life threatening' was selected by the Editors of CID as the best original clinical research article published in CID for the year 2008. CID is one of the leading journals in infectious diseases with an impact factor of 6.75. The award is given as this study has radically changed the view of the zoonotic potential of *P. knowlesi*. The article is important as the researchers retrospectively reviewed recent Malaysian experience with *P. knowlesi* infection, described four fatal cases, and drew several important practical lessons from the experience.

Journal by UNIMAS in the Top 500

The International Journal of Business and Society (IJBS), published by the Faculty of Economics and Business, UNIMAS, is included in the Top 500 journal in 2009 by the Marketing Asia Group (MAG Scholar www.magscholar.com). This in-house journal is a double blind, internationally refereed scholarly journal which publishes theoretical and empirical research in subject areas related to business administration, economics and finance.

UNIMAS won MSC Malaysia APICTA 2009 Award



The Augmented Reality Group, led by Dr. Edmund Ng Giap Weng again proved their mantle when they won the MSC Malaysia Asia Pacific Information Communication Technology Alliance (MSC Malaysia APICTA) 2009 award, for the third year in a row. UNIMAS

won the prestigious winner award for Best of Communications Applications Category. The MSC Malaysia APICTA Award, under the patronage of the Prime Minister of Malaysia, was introduced to provide a platform to stimulate creativity, innovation and excellence in ICT in

Malaysia, benchmark Malaysian ICT products and solutions, and to recognise outstanding achievements in ICT, of students, technopreneurs, SMEs and organisations which operate in Malaysia.

UNIMAS Excelled at PECIPTA 2009

UNIMAS won 1 gold medal, 1 silver medal and 3 bronze medals at the International Exposition of Research and Invention of Institutions of Higher Learning 2009 (PECIPTA) that was jointly organised

by the Ministry of Higher Education and Universiti Malaya from 8-10 October 2009 at the Kuala Lumpur Convention Centre. UNIMAS showcased 16 exhibits out of 449 projects on display. One of the

award winning projects is highlighted in the Research Highlight section of this issue and the rest in the Product and Technology Transfer section.

RESEARCH HIGHLIGHTS

University Culture and Leadership: Impact on Academic Work

Researchers : Associate Professor Dr Hong Kian Sam, Professor Dr Peter Songan, Dr Hasbee Haji Usop, Gan Siew Ling, George Tan Geok Shim, Professor Dr Rujhan Mustafa (MOHE), Dr Ngui Kwang Sing (Swinburne Sarawak)

This study examined the relationship between leadership behaviours, university culture and leadership effectiveness for academic work in Malaysian public universities. Data for the study was collected from 420 academic staff in 20 public universities.

In general, academic staff indicated satisfaction with their vice-chancellor's and deputy vice-chancellors' leadership effectiveness for academic work in the creation and implementation of strategy and vision. However the vice-chancellors' and deputy vice-chancellors' behaviours are more towards managing processes

rather than focusing on people, implying that they were task-oriented leaders. It was also revealed that the current dominant culture in public universities is a hierarchical one.

Various factors were looked into to evaluate their link to the perceptions held by these academicians. The study found that the academic staff's age, status in the university, current position, involvement in administrative duties, and types of university significantly influence their perceptions of their vice-chancellors' and deputy vice-chancellors' leadership behaviours. Also, the academic staff's

age, status in the university, highest educational level, where they obtained their highest educational degree and types of university also determined their perceptions toward university culture.

People matters. The top leadership's ability to relate to people was found to be the strongest predictor in determining the overall effectiveness of vice-chancellors and deputy vice-chancellors. Leadership behaviours impacted university culture and university culture in turn impacted leadership effectiveness for academic work.

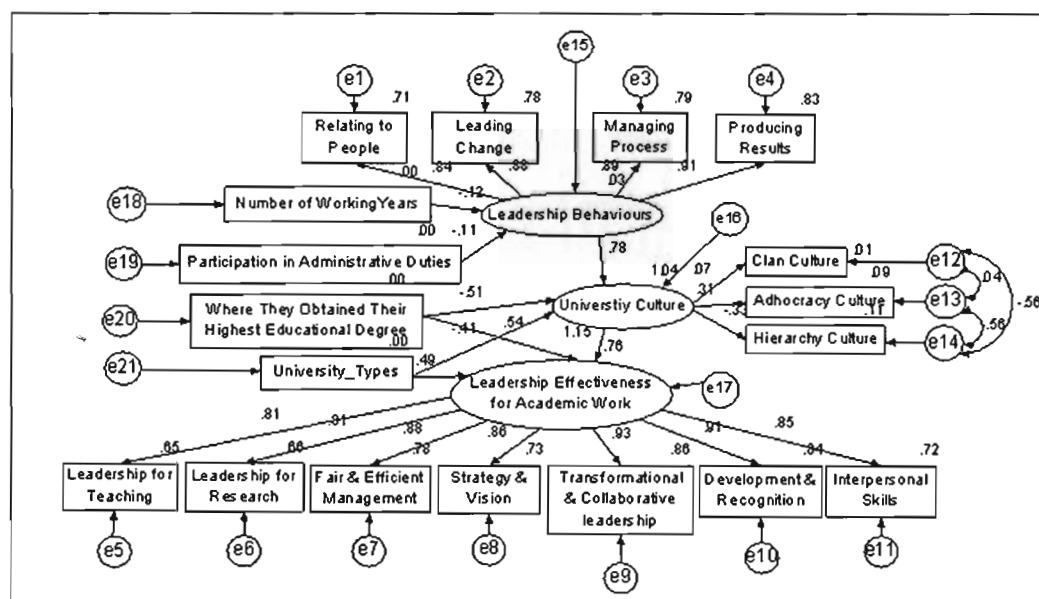


Figure 1: Structural model of leadership behaviours, university culture and effectiveness of leadership for academic work

Adsorption air-cooling systems powered by waste heat or solar heat can help to reduce the use of ozone depletion substances, such as chlorofluorocarbons (CFCs) and hydro-chlorofluorocarbons (HCFCs). In recent years, these systems have gained an increasing interest in many fields due to the fact that these systems are quiet, long lasting, cheap to maintain and also environmentally friendly.

By improving the adsorption technology, a specially designed “chemical” compressor³ (Fig.1) had been constructed and laboratory tested in the Faculty of Engineering. It is feasible to utilize automobile exhaust heat in producing the cooling effect. The on-going project is to further explore the possibility of coming up with an affordable *on-the-road* automobile cooling system prototype.

Chemical Compressor: Using Heat to Cool

Researcher: Dr Hj Mohammad Omar Abdullah

Apart from environmentally friendly, the other notable advantages of the present project are: (1) Waste heat from automobile exhaust is used instead of the conventional electric-driven compressor; (2) Fuel saving is expected; and (3) Absence of moving parts and thus less vibration on the car.

In yet another related adsorption research, a novel combined solar thermoelectric-adsorption cooling system (Fig.2) was successfully built and subsequently tested

in the Faculty of Engineering. Using a new technique by combining both of the adsorption cycle and thermoelectric elements, the cooling effect is achieved continuously throughout the day. The average coefficient of performance (COP) values of the hybrid cooling system are 0.131 (adsorption) and 0.152 (thermoelectric), respectively. The technology introduced herewith is expected to be beneficial for rural areas or locations remote from the conventional electricity grid.

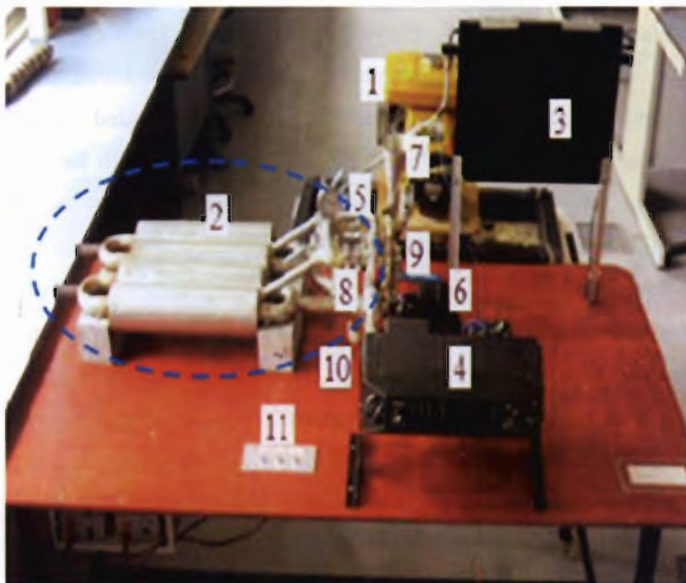


Figure 1



Figure 2

Troubleshooting Undergraduates' Academic Writing

Researchers: Dr Ting Su Hie, Humaira bt Raslie, Jee Leong Jin, Lily Law, Tee Pei Feng (USM)



University level reading and writing take on new meanings with specialised learning compared to the types done in schools. As such, undergraduates have to learn to write in ways considered acceptable by lecturers and comply with writing conventions of the academic community at large. This action research is an ongoing effort to identify the strengths and weaknesses of undergraduates' academic writing in order to identify pertinent areas which require attention in formal instruction. In effect, the study is an attempt to demystify the notion of "poor English" among undergraduates in the specific context of academic writing.

The research involved the analysis of 388 undergraduates' assignments in five text-types: arguments, discussions, explanations, information reports (classification-type) and procedures (e.g. laboratory reports). The analysis

focused on macro-level organisational structure of texts and selected micro-level grammatical features relevant to the purpose of the text. For example, the use of modal verbs such as *can* and *should* is more important in arguments and discussions whereas passive voice is necessary for effective explanations.

The results showed that undergraduates are generally more familiar with the organisational structure of an argument and discussion texts although their ideas may not be effectively developed. The more difficult text-types are explanations and information reports, both of which are objective pieces of writing with no place for personal opinion. The undergraduates had difficulty formulating the purpose of the text and signposting main points at appropriate junctures of the text for the benefit of readers. The assignments do not lack details due to the easy access to facts

and figures from Internet sources but the details are not marshaled into a coherent whole, leading to the commonly comment given by lecturers - "the assignment does not (really) answer the question".

"Poor English" in terms of localised errors in tense of verbs and subject-verb agreement is frequent. More importantly, the study revealed that for subjective types of writing such as arguments and discussions, the potential of modal verbs, nominalisations and conditional clauses were not exploited to make convincing arguments. For objective types of writing such as explanations and procedures, the connection between events and steps were not made clear to readers using sequence connectors and other cohesive devices.

Nevertheless, more than half of the assignments analysed showed good use of relevant grammatical features and organisational structure to achieve the purpose of the text. These tended to be produced by undergraduates with better proficiency in English and who were in the third or fourth year at university. While undergraduates are capable of learning through trial and error and from immersion in the university environment, the development of academic literacy can be enhanced by explicit teaching to bring about better academic success. The findings of this action research contributed towards more focused instruction to build and enhance university students' academic writing skills.

Optical Interferometry Surface Profiler System

Researchers: Mohammad Shahril Osman, Aidil Azli Alias and Shafrida Sahrani

Optical technique for measuring surface texture has the advantages which are non-contacting and non-intrusive. This means that the measurement only depends on the light being shown on the sample. A common measurement method is the interferometry techniques.

The sample is a nickel plated polished substrate commonly employed in the manufacturing of thin film media for disk drive and other optical based industries. The measurement is performed using

the point method where a Coupled Charge Device (CCD) array is used for collecting the combined beam. This is then transferred to a processor to analyze the image and to calculate the phase using Fourier Transform. By mounting the sample onto a translational stage the whole of the area can then be measured.

Two configurations were developed. Figure 1 and Figure 2 depict the schematic diagram and the image of the set-up. The set-up consists of 632 nm He-Ne laser,

polarizer, Quarter Wave Plate (QWP), collimator, mirror and CCD array. The CCD array is connected to a computer to enable the image to be viewed.

The image from the experiments is then analyzed with an interactive software. The software enables the phases of the image captured to be calculated and reveals the profile of the surface being measured. Further analysis allows measurement of the error within the surface up to nanometer scale ($\pm 10\text{nm}$).

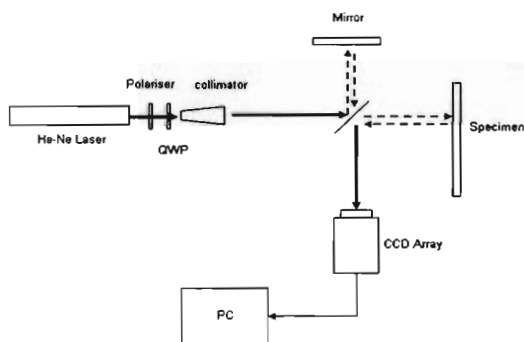


Figure 1: Schematic diagram of the surface profiler

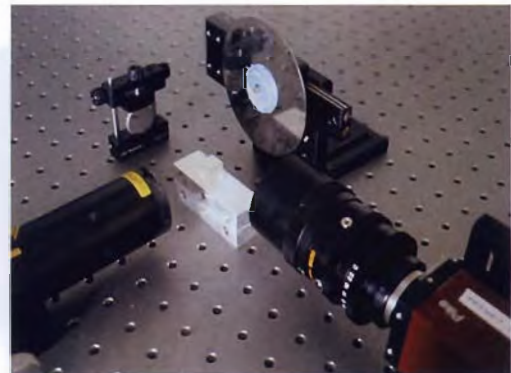


Figure 2(a): Experimental set-up

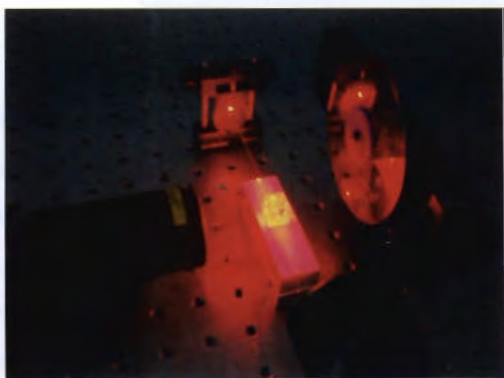


Figure 2(b): Experiment in progress

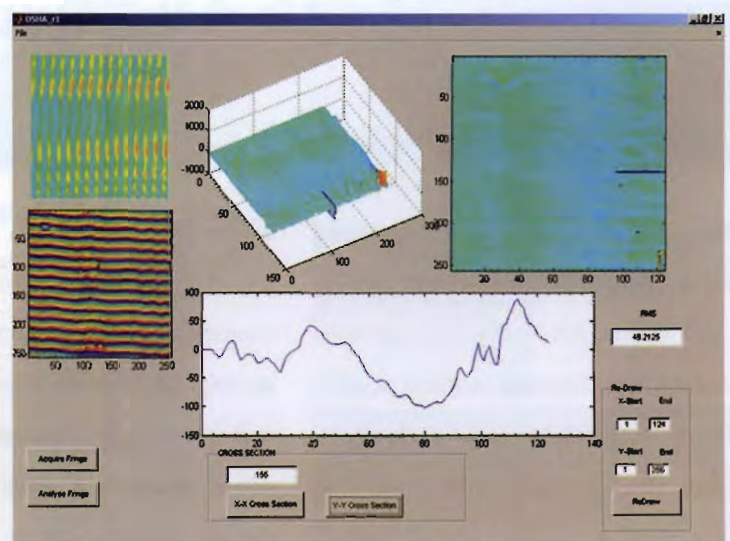


Figure 3: User-interface of the analysis software

PRODUCT & TECHNOLOGY TRANSFER

Flexi-Jacket: Jacket-cum-Backpack-cum-Tent

Researchers: Norhayati Suleiman, Dr. Nazlina Shaari, Analisa Suria Mohd Yusof

Backpackers and climbers often carry a lot of gadgets and equipment such as tents, sleeping bags and safety kits. This inconvenience has inspired the inventor to design a versatile and light jacket that can be converted into a tent.

compartments for carrying essential gadgets such as torchlight, compass, safety kit and map.

The flexi-jacket also has an attached light weight tent which is easy to set up.

The flexi-jacket is light and shower resistant. It has a waterproof zipper, an adjustable hood and elastic wrist-band that fits all sizes. The jacket also has safety reflector stripes and



Counselling via Augmented Reality

Researchers: Dr Edmund Ng Giap Weng, Amy Tiong, Allen Choong

This project develops Augmented Reality (AR) application in networking. In this project, AR Network is applied in E-Counselling Services System (ECSS). Human interaction is important to ensure that counsellors can give their psychotherapeutic services effectively to their clients. Therefore, the human

interaction component is applied in the AR Network where clients and counsellors can interact visually and audibly. AR Network allows clients to see and chat with the counsellors during the online counselling session. Clients can also see virtual objects in the video of the counsellors.

Dual Functions Outdoor Furniture

Researchers: Assoc Prof Dr Hj Khairul Aidil Azlin Abd Rahman, Md Nur Syaikhul Al Hafiz Salleh

Many users living in flats are provided with verandas that are too small for a family of four to enjoy a leisurely sit outdoor. The dual functions outdoor

furniture is designed to address this issue. The advantage of the dual functions furniture is a two sitter wooden bench that can be converted easily into a four sitter bench and a table with a simple extension.

Added to this, is the aesthetic appeal of an ornamental engraving on a tropical Meranti wood with dark brown stain finish. Optional accessories such as a big

umbrella can be added to provide shade and create a cozy look. The geometrical design is such that they are easy to produce, package, and assembled.



Eco-Colour: Natural Fabric Printing Dye Paste

Researcher: Dr Nazlina Shaari

In Malaysia's textile industry, synthetic print pastes are used extensively in creating designs on fabric surface. However, the paste or thickening is difficult to dispose and when discharged into drain and rivers, creates sedimentation in water. This greatly affects water quality and the environment.

As an alternative to the synthetic pastes, natural biodegradable materials developed from only 20% sago starch and 70% of sago waste were developed for the printing process. Labeled Eco-Color, these natural pastes are created by combining the natural sago thickening agent with natural colouring sourced from onion skins, mangosteen, dabai, various roots, etc.

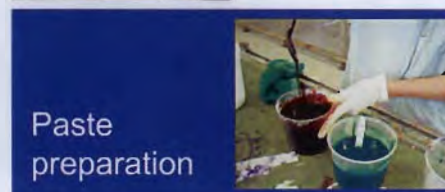
Test applications showed that the natural pastes perform better than their synthetic counterparts. Eco-Colour absorbed well into natural materials such as silk, cotton, linen, crepe de chine and habotai silk compared to synthetic printing paste which covers only the top surface of the fabrics. Also, the printing process can either use hand silkscreen or mechanised Semi or Full Automatic Carriage Printer.



Scarf
Printing



Mechanize
Printing



Paste
preparation

NETWORKING

WHO Mission

In response to the pandemic H1N1 in 2009, WHO strategised to strengthen the global and regional alert, preparedness and response system in order to monitor the rapidly evolving international public health emergency. Information gathered from this monitoring process, enabled WHO to provide guidance and assistance to Member States and partners.

As part of its effort to increase its human resources for this global response, WHO sought the assistance of external consultants through the Global Outbreak Alert and Response Network (GOARN). As a result, junior epidemiologists were invited to join the Risk Assessment and Decision Support team (ADS). ADS is part of the office of Alert and Response Operations (ARO) within the Department of Global Alert and Response (GAR) in the WHO Headquarters in Geneva, Switzerland.

The Institute of Health and Community Medicine UNIMAS, as a member of GOARN sent Yuwana Podin to join the team in Geneva on the 10 July 2009. The ADS team was responsible for epidemic threat detection, risk assessment, disease tracking and facilitating risk communications under the International Health Regulations (IHR) 2005. The duties were made possible by working closely with threat-specific and operational programs at the WHO Headquarters, WHO regional offices, WHO country offices and with external WHO partners (such as CDC Atlanta).

MoU between UNIMAS and St George's Hospital Medical School



A Memorandum of Understanding (MoU) was signed between UNIMAS and St George's Hospital Medical School, London on 6th May 2009. The MoU was signed by Professor Dr Khairuddin Ab Hamid on behalf of UNIMAS and John Duffy on behalf of St George's. Under the two-year MoU, both institutions agree to cooperate on activities which include collaborative research, academic staff and student exchanges and joint consultancies.

A collaborative research project to characterise parasite and host determinants of severe *Plasmodium knowlesi* malaria has already been initiated between Professors Sanjeev Krishna and Janet Cox-Singh from St George's and Professor Balbir Singh from the Malaria Research Centre (MRC), UNIMAS. This project is funded by the Medical Research Council of United Kingdom. Mr Atique Ahmed arrived from India in September 2009 to work on this project and has registered for a PhD at UNIMAS. Professor Janet Cox-Singh spent four weeks in Sarawak in October 2009 to introduce Mr Atique to staff at the study field sites at Sibu Hospital and Sarikei Hospital, and to supervise and train him in preparation for his PhD project at MRC.



STAKEHOLDER SPEAKS

Sustainable Forest Management and Conservation



Datu Haji Len Talif Salleh

Managing Director / CEO

SARAWAK FORESTRY Corporation Sdn Bhd.

SARAWAK FORESTRY was incorporated in 1995 by the State Government to position Sarawak at the forefront of sustainable forest management and conservation. Our vision is to achieve global recognition as the leader in tropical forest conservation and products. In moving towards our goals, we are focused to conserve and develop Sarawak's forest products and services while maintaining a balance of economic, environmental and social interests.

As the custodian of the natural resources in Sarawak, we are entrusted to safeguard and sustainably manage the amazing biodiversity in Sarawak's forests. This we carry out with full commitment and with the cooperation of all parties including the community for the rewards of success will not be shared only by us, but by the whole nation and the generations to come.

At SARAWAK FORESTRY we administer the economic, environmental and social aspects of Sarawak's forests, working in collaboration with the timber industry

and non-timber producers and rural communities. The key task include the implementation of conservation and rehabilitation activities such as forest regeneration, and to support positive community relations and development activities in order to improve the socio-economic standing of rural communities.

The R&D arm of SARAWAK FORESTRY is assigned to attain the much desired sustainable forest management, forest conservation, value-added processing and other sectoral goals. Our activities include research on biodiversity of various forest ecosystems, recovery of endangered species and habitat management, research on applied forest practices, soil, watershed and hydrology, forest protection and tree improvement, and study on forest community relations, conflict resolution and agro-forestry.

As we strive to achieve our vision, SARAWAK FORESTRY welcomes collaborations from institutions in our quest to improve and enhance the management of Sarawak's forests. We commend the support and contributions by UNIMAS, as the main research university in Sarawak in terms of research and development. SARAWAK FORESTRY is happy to collaborate with UNIMAS, as we share the same passion – to conserve and to manage our natural resources responsibly. Our workforce comprises well-trained and highly motivated professionals from every field of resource management. Through well-developed learning programmes, we hope UNIMAS would be able to assist us in producing qualified workforce and continue our reputable legacy.

RESEARCH & CONSULTATION GROUP

Institute of Biodiversity and Environmental Conservation

The Institute of Biodiversity and Environmental Conservation (IBEC) was the first research institute established by UNIMAS in 1994. Based on the idea that sustainable development and management of natural resources is vital to Malaysia's future and that it would allow greater options and opportunities for industrial activities and economic development, the research in IBEC strategically covers two aspects i.e. tropical biodiversity and environmental conservation.

The concern on tropical biodiversity is addressed by focusing on ecosystem and species that are at risk and the underlying taxonomic and ecological principles that can contribute to their conservation and management. Here, the activities are divided into four main areas of research: assessment of ecosystem and species, taxonomy and systematic, ecology, and sustainable use of biological resources.

Research on environmental conservation are directly linked to environmental rehabilitation, management and assessment. The major environmental component that is under constant threat is the water environment. Research in this area focuses on multidisciplinary aspects of water resources. It includes integrated water resource management studies, water quality assessment and monitoring strategies, ecological sanitation system, wetland conservation and restoration, lakes and river management and rehabilitation and pollution control technologies.



www.ibec.unimas.my

Centre of Excellence for Water Research

An offshoot of the environmental conservation effort by the researchers involved is the establishment of the Centre of Excellence for Water Research (CWR) in January 2006. The main function of CWR is to promote, activate and coordinate all water related research and consultancy at UNIMAS. It involves both fundamental and applied research on natural aquatic environments and on wastewaters from industrial, agricultural and urban development activities. CWR focus on development of new tools, strategies and capacity building for sustainable management of water resources in the face of rapid economic development.



SEMINARS & CONFERENCES

4th International Conference on Natural and Environmental Management and Safety and Health

On 24-26 November 2009, UNIMAS, Institut Kimia Malaysia and Universiti Kebangsaan Malaysia, in collaboration with various state's department and agencies in Sarawak, successfully organised the 4th International Conference on Natural and Environmental Management and Safety and Health. Focussing on natural resources utilization and environmental management in the midst of climate change, the 2009 theme was appropriately titled "Understanding the Causes of Climate Change and its impact on Natural Resource management".

The Engineering Conference (EnCon 2010)

The Faculty of Engineering UNIMAS, will host the annual

Engineering Conference (EnCon) from 14-15 April 2010. EnCon is the flagship engineering conference organised and hosted by the Faculty of Engineering to provide a platform for academicians, researchers, and engineers to exchange views and ideas on the latest research and newest technologies throughout the engineering spectra. The theme for EnCon2010 is 'Advancement in Mechanical and Manufacturing Engineering for Sustainable Environment'.

Asia Pacific Marketing Conference 2009

The Asia Pacific Marketing Conference 2009 was organised by the Faculty of Economics and Business UNIMAS at Damai Beach Resort, Kuching from 9-11 December 2009 with the aim to provide opportunities for professionals, practitioners and academicians to share their knowledge on the development and challenges in all areas related to the

field of marketing. With the theme "Joining Forces Moving Ahead" the Conference successfully stimulated cross-disciplinary and cross academic-practitioner discussions and networking.

Biology of the Amphibians in the Sunda-Region

An international conference on Biology of the Amphibians in the Sunda-Region was held at the Four Points Hotel, Kuching, from 28 September – 3 October 2009 to bring together different groups of people with interest in Sunda amphibians. The aim of the conference was to organise and strengthen networking among various interest groups which include all groups interested in amphibians, such as researchers, park managers, conservation authorities and students. The conference was timely as many activities in the Sunda Region concerning amphibians are often isolated.

PUBLICATIONS

Abas Said, Ahmad Shuib, Fazlina Yaakub, 2009. An Assessment of Quality Service in National Parks: A case study of Gunung Mulu National Park. *The ICAFI Journal of Environmental Economics*. Vol. 7(2), pp. 74-88.

Abdullah, M.O., Ngui, J.L., Abd. Hamid, K., Leo, S.L., Tie, S.H., 2009. Cooling Performance of a Combined Solar Thermoelectric-Adsorption Cooling System: An Experimental Study. *Energy & Fuels*. 23(11): 5677-5683.

Affan, M.A., Foo, I.P.P., Fasihuddin, B.A., Sim, E.U.H., Hapipah, M.A., 2009. Synthesis, structural characterization and toxicity studies of novel organotin (IV) complexes derived from benzoylacetone isonicotinylhydrazone (H₂BAS): X-ray crystal structure of Me₂Sn(BAS). *The Malaysian Journal of Analytical Sciences*. 13 (1): 73-85.

Ahmad Shuib, 2009. Contingency Valuation Method (CVM): Estimates of Recreational Values in Mangrove Forest in Larut-Matang, Perak. *Journal of Tropical Forest Science*. 21(1): 1 - 7

Bronner, U., Divis, P.C.S., Farnert, A., Singh, B., 2009. Swedish traveller with *Plasmodium knowlesi* malaria after visiting Malaysian Borneo. *Malaria Journal*. 8:15

Campbell, Y. M., & Jiee, W. H., 2009. Symbolism in the Gawia of the Bidayuh : A case study on the Bidayuh Bau-Singgai Gawia Sowa, Sarawak Museum Journal, 87.

Chia, S.W., Sim, E.U.H., 2009. Expression of *periostin* and identification of *periostin* isoforms in colorectal carcinoma. *Malaysian Journal of Science*. 28 (1):15-23.

Chia, S.W., Sim, E.U.H., 2009. Overexpression of wildtype *periostin* and *transforming growth factor beta 1* genes in colorectal carcinoma: A preliminary study. *Pertanika Journal of Tropical Agricultural Science*. 32 (2): 153-159.

Daneshvar, C., Davis, T.M.E., Cox-Singh, J., Rafa'ee, M.Z., Zakaria, S.K., Divis, P.C.S., Singh, B., 2009. Clinical and laboratory features of human *Plasmodium knowlesi* infections. *Clinical Infectious Diseases*. 49: 852-860.

Furumoto, T., Ueda, T., Kobayashi, N., Yassin, A., Hosokawa, A., Abe, S., 2009. Study on Laser Consolidation of Metal Powder with Yb:Fiber laser - Evaluation of Line Consolidation Structure, *Journal of Materials Processing Technology*. 209: 18-19.

Gusni Saat, 2009. Human Trafficking from the Philippines to Malaysia. *South Asian Survey*. 16 (1): 137-148.

Hamdan, S., Rahman, M.R., Hasan, M., Talib, Z.A., 2009. Dynamic Young's Modulus measurement of treated and

post treated tropical wood polymer composites (WPC), *BioResources*. 5 (1): 324-342.

Hairul Azman Roslan, Nur Hafizah Azizan, Rosmawati Saat, 2009. DNA polymorphism of D1S80 locus in Malay sample population of Sarawak. *Sains Malaysiana* 38(2): 143-147.

Hasnain Hussain, Cathie Martin, 2009. Comparative analysis of primary and secondary structure for pea isoamylase isoforms predicts different catalytic properties against glucan substrates. *Starch/Stärke* 61(10): 570-577.

Hew Cheng Sim, 2009. Globalisation and Its Challenges to Gender Mainstreaming in Malaysia. *Akademika* 76: 123-129.

H.V. Simpson, N. Muhamad, L.R. Walker, D.C. Simcock, S. Brown, K.C. Pedley, 2009. "Nitrogen excretion by the sheep abomasal parasite *Teladorsagia circumcincta*" *Experimental Parasitology*. 123, :17-23

Ibrahim Abdul Razak, Hoong-Kun Fun, Zainab Ngaini, Siti Muhaini Haris Fadzillah, Hasnain Hussain, 2009. (E)-1-(4-Decyloxyphenyl)-3-(4-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica* E65:o881-o882.

Ibrahim Abdul Razak, Hoong-Kun Fun, Zainab Ngaini, Norashikin Irdawaty Abd Rahman, Hasnain Hussain, 2009. (E)-3-[4-(Decyloxy)phenyl]-1-(4-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica* E65:o1092-o1093.

Ibrahim Abdul Razak, Hoong-Kun Fun, Zainab Ngaini, Siti Muhaini Haris Fadzillah, Hasnain Hussain, 2009. (E)-3-[4-(Dodecyloxy)phenyl]-1-(2-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica* E65:o1133-o1134.

Ibrahim Abdul Razak, Hoong-Kun Fun, Zainab Ngaini, Norashikin Irdawaty Abd Rahman, Hasnain Hussain, 2009. (E)-3-[4-(Hexyloxy)phenyl]-1-(4-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica*. E65:o1439-o1440

Jefferson Fox, Yayoi Fujita, Dimbab Ngidang, Nancy Peluso, Lesley Potter, Niken Sakuntaladewi, Janet Sturgeon, David Thomas, 2009. Policies, Political-Economy, and Swidden in Southeast Asia. *Human Ecology*, 37:305-322.

Kulathuramaiyer, N., Zaka, B., 2009. Integrated Multimodal Copy-Paste Checking. *Journal of Software* 4 (6): 521-528.

Lee, C.W., Ng, A.Y.F., Narayanan, K., Sim, E.U.H., Ng, C.C., 2009. Isolation and characterization of culturable bacteria from tropical coastal waters. *Ciencias Marina*. 35 (2): 153-167.

Lee, K-S., Cox-Singh, J., Brooke, G., Matusop, A., Singh, B., 2009. *Plasmodium knowlesi* from archival blood films: further evidence that human infections are widely distributed and not

newly emergent in Malaysian Borneo. *International Journal for Parasitology*. 39: 1125-1128.

Lee, K-S., Cox-Singh, J., Singh, B., 2009. Morphological features and differential counts of *Plasmodium knowlesi* parasites in naturally acquired human infections. *Malaria Journal*. 8: 73.

Lim, S.F., Zheng, Y.-M, Zou, S.-W. & Chen, J. P., 2009. Removal of copper by calcium alginate encapsulated magnetic sorbent. *Chemical Engineering Journal*. 152 (2-3): 509-513.

Murugaiah, C., Noor, Z.M., Mastakim, M., Lesley, M.B., Selamat, J., Son, R., 2009. Meat species identification and Halal authentication analysis 3 using mitochondrial DNA. *Meat Science*. 83 (1): 57-61.

Narayanan, K., Sim, E.U.H., Ravin, N.V., Lee, C.W., 2009. Recombination between linear double-stranded DNA substrates *in vivo*. *Analytical Biochemistry*. 387 (1), 139-141.

Nor Surayati Mohamad Usop, Azizol Abdullah, Ahmad Faisal Amri Abidin, 2009 : Performance Evaluation of AODV, DSDV & DSR, *IJCSNS International Journal of Computer Science and Network Security*, 9 (7): 261-268

Nuva Rusin, Mad Nasir Shamsudin, Alias Radam, Ahmad Shuib, 2009. Willingness to Pay towards the Conservation of Ecotourism Resources at Gunung Gede Pangrango National Park, West Java, Indonesia. *Journal of Sustainable Development*, Vol. 2, No. 2:173 - 186

Seddigheh Arab Amiry, Ahmad Shuib Mohd Rusli Yacob, Alias Radam, Zaiton Samdin, 2009. Recreational Demand in Bird Sanctuary: The Case of Kapar Bird Sanctuary, Kelang, Malaysia. *International Journal of Business and Management*. Vol 4, No. 12: 99 – 111

Sim, E.U.H., Ang, C.H., Ng, C.C., Lee, C.W., & Narayanan, K. (2009). Differential expression of a subset of ribosomal protein genes in cell lines derived from human nasopharyngeal epithelium. *Journal of Human Genetics* (advance online publication, November 20, 2009; doi:10.1038/jhg.2009.124) Singh, B., Divis, P.C.S., 2009. Orangutans not infected with *Plasmodium vivax* or *P. cynomolgi*, Indonesia. *Emerging Infectious Diseases*. 15: 1657-1658.

Tay, K.M., Lim, C. P., 2009. Enhancing the Failure Mode and Effect Analysis methodology with Fuzzy Inference Techniques. *Journal of Intelligent and Fuzzy systems*. 20: 1064-1246

Ting, S. H., & Lau, C. E., 2009. Discourse structure of telephone enquiries in Malaysian business context. *Pertanika Journal of Social Science and Humanities*, 17(2).

Ting, S. H., & Mahadhir, M., 2009. Towards homogeneity in home languages. *Australian Review of Applied Linguistics (ARAL)*, 32(2), 11.1-11.22.

Ting, S. H., Mahadhir, M., & Chang, S. L., 2010. Grammatical errors in spoken English of university students in oral communication course. *GEMA Online Journal of Language Studies*, 10.

Yassin, A., Ueda, T., Furumoto, T., Hosokawa, A., Tanaka, R., Abe, S. 2009. Experimental investigation on cutting mechanism of laser sintered material using small ball end mill. *Journal of Materials Processing Technology*. 209 (15-16): 5680-5689.

Zainab Ngaini, Siti Muhaini Haris Fadzillah, Norashikin Irdawaty Abd Rahman, Hasnain Hussain, Ibrahim Abdul Razak, Hoong-Kun Fun, 2009. (E)-3-(4-Hexyloxyphenyl)-1-(3-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographic*. E65: o879-o880.

Zainab Ngaini, Norashikin Irdawaty Abd Rahman, Hasnain Hussain, Ibrahim Abdul Razak, & Hoong-Kun Fun (2009). (E)-3-(4-Decyloxyphenyl)-1-(2-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica* E65:o889-o890.

Zainab Ngaini, Siti Muhaini Haris Fadzillah, Hasnain Hussain, Ibrahim Abdul Razak, Hoong-Kun Fun, 2009. (E)-3-[4-(Hexyloxy)phenyl]-1-(2-hydroxyphenyl)prop-2-en-1-one. *Acta Crystallographica* E65:o1301-o1302

Zainab Ngaini, Siti M. Haris Fadzillah, Hasnain Hussain, Kamarulzaman Kamaruddin, 2009. Synthesis and antimicrobial studies of (E)-3-(4-alkyloxyphenyl)-1-(2-hydroxyphenyl)propenone, (E)-3-(4-alkyloxyphenyl)-1-(4-hydroxyphenyl)propenone and their analogues. *World Journal of Chemistry* 4(1): 9-14.

Zheng, Y.-M, Lim, S.F., Chen, J. P., 2009. Preparation and characterization of zirconium-based magnetic sorbent for arsenate removal. *Journal of Colloid and Interface Science*. 338 (1): 22-29.

Zulkifli, Y., Alitheen, N.B., Son, R., Yeap, S. K., Lesley, M.B., & Raha, A.R. (2009). Identification of *Vibrio parahaemolyticus* isolates by PCR targeted to the *toxR* gene and detection of virulence genes. *International Food Research Journal*. 16: 289-296.

Zulkifli, Y., Alitheen, N.B., Son, R., Raha, A.R., Samuel, L., Yeap, S.K. and Nishibuchi, M. (2009). Random amplified polymorphic DNA-PCR and ERIC PCR analysis on *Vibrio parahaemolyticus* isolated from cockles in Padang, Indonesia. *International Food Research Journal* 16:141-150

